Amendments to the Claims:

1. (canceled)

2. (canceled)

3. (canceled)

4. (canceled)

5. (canceled)

6. (currently amended) A system for transmitting ~~a sequence of~~ three dimensional digital images over a communication network, comprising:

a storage device for storing ~~a sequence of~~ three dimensional digital images;

~~a client computer coupled to the communication network, wherein the client computer generates a request for interaction with the sequence of images stored on the image storage device, the request specifying a quality threshold and including a request list specifying data blocks that define a region of interest within the sequence of digital images; and~~

~~a server computer coupled to the communication network and the image storage device, wherein the server computer, in response to the request list, transmits to the client computer a number of data blocks corresponding to the specified quality threshold.~~

a client computer coupled to the communication network, said client computer operative to generate and transmit ~~across the~~ to a server computer ~~communication network~~ a request for interaction with the ~~image sequence~~ three dimensional image stored on said image storage device, said request for interaction comprising [[a]] an ordered request list specifying data blocks for progressive rendering of a given region of interest (ROI) within said ~~image sequence~~ three dimensional image; and

[[a]] said server computer coupled to the communication network and said image storage device, the server computer ~~adapted to perform the steps of~~ comprising means for preprocessing said ~~image sequence~~ three dimensional image through a three

dimensional wavelet transform, receiving said ordered request list from the client computer and progressively transmitting to said client computer three dimensional subband coefficient data blocks corresponding to said given region of interest in accordance with said ordered request list.

7. (canceled)

8. (canceled)

9. (canceled)

10. (previously amended) The system according to claim 6, wherein:
the request generated by the client computer specifies a resolution; and
the server computer provides a number of three dimensional data blocks corresponding to said resolution.

11. (canceled)

12. (canceled)

13. (canceled)

14. (canceled)

15. (canceled)

16. (currently amended) A method for transmitting a sequence of digital images from a server computer to a client computer over a communication network, said method comprising the steps of:
storing a sequence of digital images on a storage device;
a client computer coupled to said communication network generating and transmitting ~~across said communication network~~ to a server computer a request for interaction with an image sequence stored on said storage device, said request for interaction comprising [[a]] an ordered request list specifying data blocks for progressive rendering of a given region of interest (ROI) within said image sequence; and

[[a]] said server computer coupled to said communication network and said image storage device performing two dimensional subband transform decompositions in x-axis and y-axis directions on each ~~frame~~ image within said sequence to yield a two-dimensionally transform-decomposed digital image;

said server computer performing a one dimensional subband transform decomposition in a z-axis direction on a portion of said two-dimensionally transform-decomposed digital image; and

said server computer progressively transmitting to said client computer three dimensional subband coefficient data blocks corresponding to said given region of interest in accordance with said ordered request list.

17. (canceled)

18. (canceled)

19. (canceled)

20. (currently amended) The method according to claim 16, further comprising the steps of:

including in the request generated by the client computer a specified resolution; and

providing ~~a number of~~ one or more three dimensional data blocks from the server computer that correspond to said resolution.

21. (canceled)

22. (canceled)

23. (canceled)

24. (canceled)

25. (canceled)

26. (currently amended) A server for progressive streaming of sequences of digital images to a client over a communications network, comprising:

an image storage device for storing a sequence of digital images;

a memory cache;

a processor in communication with said image storage device, said processor comprising means for: ~~and adapted to perform the steps of preprocessing the image sequence through a three dimensional forward wavelet transform to yield three dimensional wavelet coefficient data;~~

preprocessing the image sequence through a three dimensional forward wavelet transform to yield three dimensional wavelet coefficient data;

storing said three dimensional wavelet coefficient data in [[a]] said memory cache;

receiving [[a]] an ordered request list for one or more three dimensional data blocks from said client, each three dimensional data block corresponding to a given region of interest;

checking if a requested three dimensional data block is present in said memory cache, and if not, computing three dimensional subband coefficient data blocks corresponding to said data block and storing said coefficient data in said memory cache; and

~~if a requested three dimensional data block is not present in the memory cache, performing the step of preprocessing on a minimum portion of a region of interest requiring processing; and~~

transmitting to said client three dimensional subband coefficient data blocks corresponding to said given region of interest.

27. (canceled)

28. (canceled)

29. (canceled)

30. (previously amended) The server according to claim 26, wherein said three dimensional wavelet transform comprises the steps of:

performing two dimensional subband transform decompositions in x-axis and y-axis directions on said image sequence to yield two-dimensionally transform-decomposed digital images; and

performing a one dimensional subband decomposition in a z-axis direction on a portion of said two-dimensionally transform-decomposed image sequence.

31. (currently amended) The system according to claim 6, wherein said three dimensional wavelet transform comprises the steps of:

performing two dimensional subband transform decompositions in x-axis and y-axis directions on said ~~image sequence~~ three dimensional image to yield a two-dimensionally transform-decomposed digital image; and

performing a one dimensional subband decomposition in a z-axis direction on a portion of said two-dimensionally transform-decomposed ~~image sequence~~ three dimensional image.

32. (previously amended) The system according to claim 6, further comprising the step of transmitting to said client computer data representing thumbnail resolution images.

33. (currently amended) The system according to claim 6, wherein said ordered request list generated by said client computer specifies a quality threshold and said server computer comprises means for sending ~~sends~~ three dimensional subband coefficient data blocks corresponding to said quality threshold.

34. (previously presented) The system according to claim 6, wherein said client computer comprises means for requesting fewer quality layers if an image is mapped in accordance with a luminance mapping function to a viewing device having fewer bits per pixel than that of said image.

35. (previously amended) The method according to claim 16, further comprising the step of said server computer transmitting to said client computer data representing thumbnail resolution images.

36. (currently amended) The method according to claim 16, wherein said ordered request list generated by said client computer specifies a quality threshold and said server computer sends three dimensional subband coefficient data blocks corresponding to said quality threshold.

37. (currently amended) The method according to claim 16, wherein said server computer progressively transmits said three dimensional subband coefficient data blocks to said client computer using one of the ~~following~~ three progressive modes: progressive by accuracy, progressive by resolution or progressive by spatial order.

38. (previously presented) The method according to claim 16, wherein said client computer requesting fewer quality layers if an image is mapped in accordance with a luminance mapping function to a viewing device having fewer bits per pixel than that of the image.

39. (currently amended) The server according to claim 26, ~~further comprises the step of~~ wherein said processor further comprises means for transmitting to said client computer data representing thumbnail resolution images.

40. (currently amended) The server according to claim 26, wherein said ordered request list received from the said client computer specifies a quality threshold and said ~~server computer~~ processor comprises means for transmitting ~~sends~~ three dimensional subband coefficient data blocks corresponding to said quality threshold in response thereto.

41. (currently amended) The server according to claim 26, wherein said ~~server computer~~ processor comprises means for ~~is operative to progressively transmit~~ progressively transmitting said three dimensional subband coefficient data blocks to said client computer using one of the following three progressive modes: progressive by accuracy, progressive by resolution or progressive by spatial order.

42. (currently amended) The server according to claim 26, wherein said processor ~~is further adapted to perform the step of~~ comprises means for receiving from said client computer a request for fewer quality layers if an image is mapped in accordance with a luminance mapping function to a viewing device having fewer bits per pixel than that of the image.

43. (currently amended) ~~A computer program product characterized by that upon loading it into computer memory an image sequence streaming process is executed, the computer program product comprising:~~

~~a computer useable medium having computer readable program code means embodied in said medium for progressively streaming sequences of digital images to a client over a communications network, said computer program product comprising:~~

~~computer readable program code means for preprocessing said image sequence through a three dimensional forward wavelet transform to yield three dimensional subband coefficient data;~~

~~computer readable program code means for storing said three dimensional subband coefficient data in a memory cache;~~

~~computer readable program code means for receiving a request for one or more three dimensional data blocks from said client, each data block corresponding to a region of interest;~~

~~computer readable program code means for performing the step of preprocessing on a minimum portion of the region of interest requiring processing if a requested data block is not present in said memory cache; and~~

~~computer readable program code means for transmitting to the client three dimensional subband coefficient data blocks corresponding to said region of interest.~~

A computer readable recording medium that stores a computer program for progressively streaming sequences of digital images to a client over a communications network, said computer program including instructions, which when executed, cause a computer to execute:

preprocessing said image sequence through a three dimensional forward wavelet transform to yield three dimensional subband coefficient data;

storing said three dimensional subband coefficient data in a memory cache;

receiving an ordered request list for one or more three dimensional data blocks from said client, each data block corresponding to a given region of interest;

checking if a requested three dimensional data block is present in said memory cache, and if not, computing three dimensional subband coefficient data blocks corresponding to said data block and storing said coefficient data in said memory cache; and

transmitting to the client three dimensional subband coefficient data blocks corresponding to said given region of interest.

44. (currently amended) The ~~computer program product~~ computer readable recording medium according to claim 43, further comprising ~~computer readable program code means for~~ transmitting to said client data representing thumbnail resolution images.

45. (currently amended) The ~~computer program product~~ computer readable recording medium according to claim 43, further comprising ~~computer readable program code means for~~ sending three dimensional subband coefficient data blocks corresponding to a quality threshold to said client in response to [[a]] an ordered request list received therefrom.

46. (currently amended) The ~~computer program product~~ computer readable recording medium according to claim 43, wherein ~~the computer readable program code means for~~ transmitting comprises ~~computer readable program code means for~~ progressively transmitting said three dimensional subband coefficient data blocks to said client using one of the following three progressive modes: progressive by accuracy, progressive by resolution or progressive by spatial order.

47. (currently amended) The ~~computer program product~~ computer readable recording medium according to claim 43, wherein said three dimensional data block comprises x, y, z and quality layer information.

48. (currently amended) The ~~computer program product~~ computer readable recording medium according to claim 43, wherein said three dimensional data block comprises x, y, z, resolution and quality layer information.

49. (previously presented) The system according to claim 6, wherein said three dimensional data block comprises x, y, z and quality layer information.

50. (previously presented) The system according to claim 6, wherein said three dimensional data block comprises x, y, z, resolution and quality layer information.

51. (previously presented) The method according to claim 16, wherein said three dimensional data block comprises x, y, z and quality layer information.

52. (previously presented) The method according to claim 16, wherein said three dimensional data block comprises x, y, z, resolution and quality layer information.

53. (previously presented) The server according to claim 26, wherein said three dimensional data block comprises x, y, z and quality layer information.

54. (previously presented) The server according to claim 26, wherein said three dimensional data block comprises x, y, z, resolution and quality layer information.